

US-PAT-NO: 5972721

DOCUMENT-IDENTIFIER: US 5972721 A

TITLE: Immunomagnetic assay system for
clinical diagnosis and
other purposes

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Abstract Text - ABTX (1):

An apparatus and method for immunomagnetic separation and concentration of target biological materials is disclosed. The immunomagnetic separation is performed by a magnetic flow cell, or filter block, as part of an automated mostly continuous immunomagnetic assay system. The magnetic flow cell has two bundles of ferromagnetic rods or pins positioned inside an internal chamber so that a fluid sample flowing through the flow cell passes through the pins. A pair of cobalt magnets flank the flow cell so that the pins concentrate and sufficiently increase the magnetic fields so that even nanometer size magnetic beads can be captured. The overall system combines a reaction subsystem for reacting coated magnetic beads with a sample, a collection subsystem for capturing magnetic beads, a rinsing subsystem for removing debris and a filtering subsystem for removing captured magnetic beads from the collection subsystem. The new magnetic flow filter is the key component for the collection and filtering subsystems.

US - PAT - NO : 6184043

DOCUMENT- IDENTIFIER: US 6184043 B1

TITLE: Method for detection of specific target cells in specialized or mixed cell population and solutions containing mixed cell populations

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Claims Text - CLTX (20):

isolating the target-cells by exposing the complex of cells and paramagnetic particles to a magnetic field to magnetically aggregate the cells;